

FERC FORM 1 SUPPLEMENT

ANNUAL REPORT

OF THE



NAME	ENTERGY ARKANSAS, INC.	_
LOCATED AT	425 W. CAPITOL, LITTLE ROCK, ARKANSAS 72201	
COMPANY#	1	

TO THE

ARKANSAS PUBLIC SERVICE COMMISSION



COVERING ALL OPERATIONS

FOR THE YEAR ENDING DECEMBER 31, 2016

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	In order to satisfy the filing requirements of the Arkansas Public Service Commission, these supplemental schedules will be filed annually with a copy of the Federal Energy Regulatory Commission Form 1. One complete copy will be filed with each, the Utilities Division and the Tax Division of the Arkansas Public Service Commission on or before March 31 immediately following the year being reported.	
		r

LETTER OF TRANSMITTAL

То:	Arkansas Public Service Commission Post Office Box 400 Little Rock, Arkansas 72203-0400
of	mitted herewith is the annual report covering the operation of
The	following report has been carefully examined by me, and I have executed the verification given below.
	Alg M. M. (Signature)
	SENIOR VICE PRESIDENT AND CHIEF ACCOUNTING OFFICER (Title)
	VERIFICATION
STA	TE OF LOUISIANA
PAF	RISH OF ORLEANS
ENT from sam and mad	e undersigned, ALYSON M. MOUNT, <u>SENIOR VICE PRESIDENT AND CHIEF ACCOUNTING OFFICER</u> of <u>TERGY ARKANSAS</u> , <u>INC.</u> , on my oath do say that the following report has been prepared under my direction the original books, papers, and records of said utility: that I have carefully examined the same, and declare the e a complete and correct statement of the business and affairs of said utility in respect to each and every matter thing set forth, to the best of my knowledge, information, and belief; and I further say that no deductions were le before stating the gross revenues, and that accounts and figures contained in the foregoing statements trace all of the financial transactions for the period in this report.
	Algan (Signature)
day	scribed and sworn to before me this 24th of

PAUL J. ORY
Notary Public LA Bar Roll # 21789
State of Louisiana
My Commission is for Life.

GENERAL INSTRUCTIONS, DEFINITIONS, ETC.

- Two (2) copies of this report, properly filled out and verified shall be filed with the Utility Division of the Arkansas Public Service Commission, Little Rock, Arkansas, on or before the 31st day of March following the close of the calendar year for which the report is made.
- 2. This form of annual report is prepared in conformity with the Uniform System of Accounts for Public Utilities prescribed by the Public Service Commission and all accounting words and phrases are to be interpreted in accordance with the said classification.
- 3. The word "respondent" in the following inquiries means the person, firm, association or company in whose behalf the report is made.
- 4. Instructions should be carefully observed, and each question should be answered fully and accurately. Where the word "none" truly and completely states the fact, it should be given to any particular inquiry.
- 5. If any schedule does not apply to the respondent, such fact should be shown on the schedule by the words "not applicable."
- 6. Except in cases where they are especially authorized, cancellations, arbitrary check marks, and the like must not be used either as partial or entire answers to inquiries.
- 7. Reports should be made out by means which result in a permanent record. The copy in all cases shall be made out in permanent black ink or with permanent black typewriter ribbon. Entries of a contrary or opposite character (such as decreases reported in a column providing for both increases and decreases) should be shown in red ink or enclosed in parentheses.
- 8. This report will be scanned in. Please bind with clips only.
- 9. Answers to inquiries contained in the following forms must be complete. No answer will be accepted as satisfactory which attempts by reference to any paper, document, or return of previous years or other reports, other than the present report, to make the paper or document of portion thereof thus referred to a part of the answer without setting it out. Each report must be complete within itself.
- In cases where the schedules provided in this report do not contain sufficient space or the information called for, or if it is otherwise necessary or desirable, additional statements or schedules may be inserted for the purpose of further explanation of accounts or schedules. They should be legibly made on paper of durable quality and should conform with this form in size of page and width of margin. This also applies to all special or unusual entries not provided for in this form. Where information called for herein is not given, state fully the reason for its omission.
- 11. Each respondent is required to send in connection with its report to this Commission's Utilities Division, one (1) copy of its latest annual report to stockholders.
- 12. Schedules supporting the revenue accounts and furnishing statistics should be so arranged as to effect a division in the operations as to those inside and outside the state.
- 13. Answers to all inquiries may be in even dollar figures, with cents omitted and with agreeing totals.
- 14. Each respondent should make its report in duplicate, retaining one copy for its files for reference, in case correspondence with regard to such report becomes necessary. For this reason, several copies of the accompanying forms are sent to each utility company concerned.

Give the name, title, office a report should be addressed		e-mail address	of the pers	son to whom any correspondence concerning this	
Name	Brandie S. Borde	Title	Director, E	External Reporting	
Address	Entergy Services, Inc., P.O. Bo	ox 61000, New	Orleans, L	A 70161-1000	
Telephone Number	(504) 576-7175				
E-Mail	bborde@entergy.com				
Give the name, address, tel	ephone number and e-mail add	ress of the res	ident agent:		
Name	Janan Honeysuckle	Telephone	Number	(501) 377-5886	
Address	Entergy Arkansas, Inc., P.O. B	ox 551, Little I	Rock, AR 72	2203	
E-Mail	jhoneys@entergy.com				

	IDENTITY OF RESPONDENT
1.	Give the exact name by which respondent was known in law at the close of the year. Use the initial word "The" only when it is part of the name:
	ENTERGY ARKANSAS, INC.
2.	Give the location (including street and number) of (a) the main Arkansas business office of respondent at the close of the year, and (b) if respondent is a foreign corporation, the main business office if not in this state:
	(a) 425 W. CAPITOL LITTLE ROCK, ARKANSAS 72201 MAILING ADDRESS: ENTERGY ARKANSAS, INC. P.O. BOX 551 LITTLE ROCK, ARKANSAS 72203
3.	Indicate by an \mathbf{x} in the proper space (a) the type of service rendered, and (b) the type of organization under which respondent was operating at the end of the year.
	(a) (x) Electric, () Gas, () Water, () Telephone, () Other
	(b) () Proprietorship, () Partnership, () Joint Stock Association, (x) Corporation, () Other (describe below):
4.	If respondent is not a corporation, give (a) date of organization, and (b) name of the proprietor or the names of all partners, and the extent of their respective interest at the close of the year.
	Not Applicable
5.	If a corporation, indicate (a) in which state respondent is incorporated, (b) date of incorporation, and (c) designation of the general law under which respondent was incorporated, or, if under special charter, the date of passage of the act:
F	 (a) Arkansas (b) October 2, 1926 (c) "An Act to authorize the merger of business corporations and to provide for the sale of the assets and franchises of such corporations" approved March 11, 1925
6.	State whether or not respondent during the year conducted any part of its business within the State of Arkansas under a name or names other than that shown in response to inquiry No. 1 above, and, if so, give full particulars:
	None
7.	State whether respondent is a consolidated or merged company. If so, (a) give date and authority for each consolidation or merger, (b) name all constituent and merged companies, and (c) give like particulars as required of the respondent in inquiry No. 5 above:

Entergy Arkansas, Inc. (previously known as Arkansas Power & Light Company) as it conducted business in 2016 came into existence on October 13, 1926. Technically, the corporation was created on October 2, 1926, when the Articles of Incorporation were filed with the Secretary of State; however, no assets other than the minimum necessary to incorporate were obtained until October 13, 1926. On that date, a consolidation and merger occurred which combined with and into Entergy Arkansas, Inc. the following companies: (1) East Arkansas Power & Light Company, (2) Arkansas Central Power Company, (3) Arkansas Light & Power Company, and (4) The Pine Bluff Company. These four companies were corporations of the State of Arkansas, incorporated under the laws of this State.

Additionally, effective on and as of January 1, 1981, the electric properties of Entergy Arkansas, Inc. and the Arkansas-Missouri Power Company were consolidated as authorized under the laws of the State of Arkansas. Prior to its consolidation with Entergy Arkansas, Inc., Arkansas-Missouri Power Company was a corporation of the State of Arkansas, incorporated under the laws of this State.

8. State whether respondent is a reorganized company. If so, give (a) name of original corporation, (b) date of reorganization, (c) reference to the laws under which it was reorganized and (d) state the occasion of the reorganization, whether because of foreclosure of mortgage or otherwise, giving full particulars.

Entergy Arkansas, Inc. is not a reorganized company, except to the extent as described in the answer to No. 7.

9.		s respondent subject to a receivership or other trust at any time during the year?	<u>NO</u>	Ý
	(a)	Name of receiver or trustee:		
	(b)	Name of beneficiary or beneficiaries for whom trust was maintained:		
	(c)	Purpose of the trust:		
	(d)	Give (1) date of creation of receivership or other trust, and (2) date of acquisition of respondent: (1) (2)		
10.		the respondent act in any of the capacities listed in Paragraph (a) below during the st year? NO If so,		
	(a)	Indicate the applicable one by an X in the proper space:		
		 () Guarantor, () Surety, () Principalobligor to a guaranty contract. 	ct,	
	(b)	Insert a statement showing the character, extent, and terms of the primary agreement including (1) names of all parties involved, (2) extent of liability of respondent, whether		

actual, (3) extent of liabilities of the other parties, whether contingent or actual, and (4) security taken

or offered by respondent.

DIRECTORS AND COMPENSATION

Give the name and office addresses of all directors at the close of the year, and dates of beginning and expiration of terms. Chairman (*) and Secretary (**) marked by asterisks.

Item	None of Divertor	Office Address	Date of T	Compensation	
No.	Name of Director	Office Address	Beginning	Beginning End	
1.	Richard C. Riley*	Entergy Arkansas, Inc. 425 W. Capitol Avenue 40th Floor Little Rock, AR 72201	5/1/2016		(1)
2.	Theodore H. Bunting, Jr.	Entergy Corporation 639 Loyola Avenue New Orleans, LA 70113	6/1/2012		(1)
3,	Andrew S. Marsh	Entergy Corporation 639 Loyola Avenue New Orleans, LA 70113	2/1/2013		(1)
4.:	Paul D. Hinnenkamp	Entergy Corporation 639 Loyola Avenue New Orleans, LA 70113	11/1/15		(1)
	at .				
		,			

⁽¹⁾ These individuals are employees of either Entergy Arkansas, Inc. or other Entergy System Companies and are not separately compensated as directors.

PRINCIPAL OFFICERS AND KEY MANAGEMENT PERSONNEL

Give the title of the principal officers, managers and key personnel, the names and office addresses of persons holding such positions at the close of the year, and the annual salary of each.

Item No.	Title	Name of person holding office at close of year	Office Address	Annual Salary
1.	Senior Vice President and Chief Accounting Officer of Entergy Corporation and Entergy Arkansas, Inc.	Alyson M. Mount	639 Loyola Avenue New Orleans, LA 70113	**0
2.	Executive Vice President and Chief Financial Officer of Entergy Corporation and Entergy Arkansas, Inc.	Andrew S. Marsh	639 Loyola Avenue New Orleans, LA 70113	*
3.	Executive Vice President and Chief Administrative Officer of Entergy Corporation	Donald W. Vinci	639 Loyola Avenue New Orleans, LA 70113	*
4.	President and Chief Executive Officer of Entergy Arkansas, Inc.	Richard C. Riley	425 W. Capitol Avenue 40th Floor Little Rock, AR 72201	\$325,020
5.	Chairman of the Board and Chief Executive Officer of Entergy Corporation	Leo P. Denault	639 Loyola Avenue New Orleans, LA 70113	*
6.	Executive Vice President and General Counsel of Entergy Corporation and Entergy Arkansas, Inc.	Marcus V. Brown	639 Loyola Avenue New Orleans, LA 70113	*
7.	Vice President and Treasurer of Entergy Corporation and Entergy Arkansas, Inc.	Steven C. McNeal	639 Loyola Avenue New Orleans, LA 70113	*
8.	Group President, Utility Operations of Entergy Corporation and Entergy Arkansas, Inc.	Theodore H. Bunting, Jr.	639 Loyola Avenue New Orleans, LA 70113	
9.	Senior Vice President and General Tax Counsel of Entergy Corporation and Entergy Arkansas, Inc.	Joseph T. Henderson	2001 Timberloch Place The Woodlands, TX 77380	(W)
10.	Vice President, System Planning of Entergy Services, Inc. and Entergy Arkansas, Inc.	John P. Hurstell	10055 Grogans Mill Road The Woodlands, TX 77380	*
11.	Vice President, Public Affairs of Entergy Arkansas, Inc.	John T. Kennedy	425 W. Capitol Avenue 40th Floor Little Rock, AR 72201	
12.	Vice President, Regulatory Affairs of Entergy Arkansas, Inc.	Laura R. Landreaux	425 W. Capitol Avenue 40th Floor Little Rock, AR 72201	
13.	Executive Vice President of Entergy Corporation	Roderick K. West	639 Loyola Avenue New Orleans, LA 70113	**
14.	Secretary of Entergy Corporation and Entergy Arkansas, Inc.	Daniel T. Falstad	639 Loyola Avenue New Orleans, LA 70113	(€
15.	Vice President, Customer Service of Entergy Arkansas, Inc.	Oscar D. Washington, Jr.	900 S. Louisiana Little Rock, AR 72203	*
16.	Senior Vice President and Chief Operating Officer of Entergy Corporation	Paul D. Hinnenkamp	639 Loyola Avenue New Orleans, LA 70113	*
17	Executive Vice President and Chief Nuclear Officer of Entergy Corporation and Entergy Arkansas, Inc.	A. Christopher Bakken, III	1340 Echelon Parkway Jackson, MS 39213	*
	TOTAL			\$ 325,020

Officers whose salaries are not listed are compensated by other System companies and not by Entergy Arkansas, Inc. or are not Named Executive Officers of Entergy Arkansas, Inc.

ELECTRIC OPERATING REVENUES (Account 400) - ARKANSAS ONLY

- 1. Report below operating revenue for each prescribed account, and manufactured gas revenues in total.
- 2. Report number of customers, columns (g) and (h), on the basis of meters, in addition to the number of flat rate accounts, except that where separate meter readings are added for billing purposes, one customer should be counted for each group of meters added. The average number of customers means the average of twelve figures at the close of each month.
- previously reported figures, explain any inconsistencies in a
- 4. Commercial and Industrial Sales, Account 442, may be classified according to the basis of classification (Small or Commercial, and Large or Industrial) regularly used by the respondent if such basis of classification is not generally greater than 1000Kw of demand. (See Account 442 of the Uniform System of Accounts. Explain basis of classification in a footnote.)
- 3. If previous year (columns (d), (f), and (h)), are not derived from 5. Include unmetered sales. Provide details of such sales in a footnote.
 - 6. This Commission requires a reporting by Kwh rather than

Line	Acct.	Title of A	OPERATING	OPERATING REVENUES		HOURS SOLD	AVG. NO. OF CU MON	
No.	No.	Title of Account	Amount for Year	Amount for Previous Year	Amount for Year	Amount for Previous Year	Number for Year	Number for Previous Year
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1		Sales of Electricity	5-33-11					
2	440	Residential Sales	\$782,205,166	\$816,386,090	7,618,425,842	8,016,286,835	589,522	588,065
3	442	Commercial & Industrial Sales						
4		Small (or Commercial) (See Instr. 4)	491,223,970	510,876,863	5,988,080,012	6,019,779,284	92,788	91,611
5		Large (or Industrial) (See Instr. 4)	441,954,190	473,817,644	6,795,444,788	6,888,937,695	23,855	23,794
6	444	Public Street & Highway Lighting	8,716,905	9,485,063	78,025,873	77,849,177	612	635
7	445	Other Sales to Public Authorities	9,627,484	10,231,655	159,365,123	157,310,851	94	65
8	446	Sales to Railroads and Railways						
9	448	Interdepartmental Sales						
10		TOTAL Sales to Ultimate Consumers	1,733,727,715	1,820,797,315	20,639,341,638	21,160,163,842	706,871	704,170
11	447	Sales for Resale	167,148,618	323,571,357	8,724,404,377	10,219,229,044	1	3
12		TOTAL Sales of Electricity	1,900,876,333	2,144,368,672	29,363,746,015	31,379,392,886	706,872	704,173
13	449.1	(Less) Provision for Rate Refund	504,614	159,064				
14		TOTAL Rev. Net of Prov. for Refunds	1,900,371,719	2,144,209,608	29,363,746,015	31,379,392,886	706,872	704,173
15		Other Operating Revenues						
16	450	Forfeited Discounts	10,075,188	10,298,231		Gross Assessab	le Revenues	
17	451	Miscellaneous Service Revenues	2,867,821	3,072,217				
18	453	Sales of Water and Water Power			LINE 28 TOTAL FF	ROM THIS SCHEDULE		\$2,071,672,218
19	454	Rent from Electric Property	6,388,966	5,728,923				
20	455	Interdepartmental Rents				NE 13 AMT. (ACCT 44		
21	456	Other Electric Revenues	151,968,524	75,130,902	PR	OVISION FOR RATE	REFUNDS)	504,614
22								
23						REDIT FOR RATE REF		
24					PA	ID THIS REPORTING	YEAR	-:
25					1500	LEO FOR RECALE		(407 440 040
26					LESS: SA	LES FOR RESALE		(167,148,618
27		Total Other Operating Revenues	171,300,499	94,230,273				
28		Total Electric Operating Revenues	\$2,071,672,218	\$2,238,439,881	TOTAL GROSS AS	SSESSABLE REVENU	ES	\$1,905,028,214

ELECTRIC OPERATING REVENUES (Account 400) - ARKANSAS ONLY

- Report below operating revenues for each prescribed account, and manufactured gas revenues in total.
- 2. Report number of customers, columns (f) and (g), on the basis of meters, in addition to the number of flat rate accounts; except that where separate meter readings are added for billing purposes, one customer should be counted for each group of meters added. The average
- number of customers means the average of twelve figures at the close of each month.
- 3. If previous year (columns (c), (e), and (g)), are not derived from previously reported figures, explain any inconsistencies in a footnote.
- 4. Commercial and Industrial Sales, Account 442, may be classified according to the basis of classification (Small or Commercial, and Large or Industrial) regularly used by the respondent if such
- basis of classification is not generally greater than 1000 Kw of demand. (See Account 442 of the Uniform System of Accounts. Explain basis of classification in a footnote.)
- 5. Include unmetered sales. Provide details of such sales in a footnote.
- 6. This Commission requires reporting by Kwh rather than by Mwh.

SUMMARY OF UNMETERED SALES - ARKANSAS ONLY FOR THE YEAR 2016

			Avg. NO.
	Revenues	KWH	Customers
Muncipal Street Lighting	\$8,108,508	71,866,899	311
Traffic Signal Service	594,262	5,970,568	276
T.V. Amplifier Service	2,577,463	25,930,905	2,682
Outdoor Lighting	24,495,309	211,217,472	*
	\$35,775,542	314,985,844	3,269

^{*}Customers are not counted in this sales classification but are counted in applicable schedules of service.

UTILITY PLANT - SYSTEM	Beginning Balance	Additions	Retirements (Cr)	Adjustments	Balance at end of Year
Plant in Service (Classified)	\$9,628,094,683	\$1,004,004,591	(\$72,886,713)		\$10,559,212,561
Property Under Capital Leases	844,068			(128,453)	715,615
Plant Purchased or Sold					
Experimental Plant Unclassified					
Plant Leased to Others					
Plant Held for Future Use	965,381		1	3	965,381
Completed Construction not Classified					
Construction Work in Progress	403,206,466			(81,771,124)	
Plant Acquisition Adjustments	21,824,442			22,813,492	44,637,934
Sub-Total	10,054,935,040	1,004,004,591	(72,886,713)	(59,086,085)	10,926,966,833
Other Plant Adjustments Other Utility Plant (itemize)		8			
Nuclear Fuel (in Process of Refinement, etc.)	87,976,872			(10,534,213)	77,442,659
Nuclear Fuel Under Capital Lease	198,364,093			31,545,274	229,909,367
Total	\$10,341,276,005	\$1,004,004,591	(\$72,886,713)	(\$38,075,024)	\$11,234,318,859

UTILITY PLANT - ARKANSAS	Beginning Balance	Additions	Retirements (Cr)	Adjustments	Balance at end of Year
Plant in Service (Classified)	\$9,293,896,701	992,917,779	(67,342,559)	4	10,219,471,921
Property Under Capital Leases	844,068			(128,453)	715,615
Plant Purchased or Sold					
Experimental Plant Unclassified	1				
Plant Leased to Others	1				
Plant Held for Future Use	946,912			≆ €	946,912
Completed Construction not Classified					
Construction Work in Progress	397,828,447			(76,821,549)	321,006,898
Plant Acquisition Adjustments	21,824,442			22,813,492	44,637,934
Sub-Total	9,715,340,570	992,917,779	(67,342,559)	(54,136,510)	10,586,779,280
Other Plant Adjustments Other Utility Plant (itemize)					
Nuclear Fuel (in Process of Refinement, etc.)					
Nuclear Fuel Under Capital Lease	196,815,143			(20,516,630)	176,298,513
Total	\$9,912,155,713	\$992,917,779	(\$67,342,559)	(\$74,653,140)	\$10,763,077,793

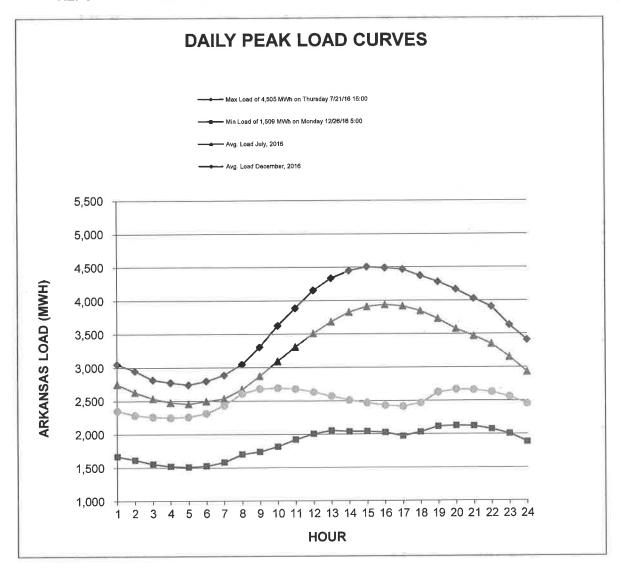
DAILY PEAK LOAD CURVES

- 1. Show total net 60 minute peak demand of Intrastate Energy.
- 2. If 60 minute peak is not available, give that which is available, specifying period,
- 3. Include total net power demand including that generated and purchased.

		Arkansas L	oad	
Hour	Maximum	Minimum	Avg. Max.	Avg. Min.
1	3,048	1,668	2,749	2,353
2	2,950	1,616	2,629	2,287
3	2,816	1,556	2,536	2,260
4	2,775	1,521	2,478	2,252
5	2,741	1,509	2,455	2,259
6	2,798	1,525	2,495	2,312
7	2,886	1,581	2,534	2,430
8	3,049	1,700	2,672	2,612
9	3,309	1,738	2,871	2,680
10	3,628	1,815	3,097	2,694
11	3,890	1,920	3,311	2,678
12	4,157	2,006	3,509	2,632
13	4,337	2,053	3,683	2,570
14	4,448	2,039	3,827	2,510
15	4,505	2,040	3,912	2,469
16	4,489	2,024	3,939	2,429
17	4,468	1,970	3,917	2,413
18	4,371	2,030	3,844	2,465
19	4,281	2,113	3,725	2,624
20	4,166	2,125	3,576	2,665
21	4,029	2,119	3,468	2,658
22	3,908	2,073	3,349	2,628
23	3,633	2,004	3,154	2,557
24	3,411	1,884	2,930	2,455

4,505 1

1,509



				:5 5GF	EDULED COMPLETE OUTAGE
Plant Name	Unit No.	Da	On	Hrs. Lost	Reason for Outage
ARKANSAS NUCLEAR ONE	1	Out 9/24/2016 0:07	10/1/2016 0:00	167.88	1R26 Refueling Outage
ARKANSAS NUCLEAR ONE	1 ' 1	10/1/2016 0:00	10/29/2016 00:07:00	672.12	1R26 Refueling Outage
	1 1	10/29/2016 0:07	12/14/2016 19:15	1124.13	1R26 Scheduled Extension
	2	2/23/2016 12:02	3/3/2016 04:22:00		Maintenance Outage to repair leaking Low Pressure Safety Injection valve 2SI-13D.
CARPENTER DAM	1	1/12/16 8:02:00	1/12/16 18:09:00		Voltage regulator testing
		1/13/16 8:22:00	1/13/16 23:58:00	15,60	Voltage regulator testing Testing of AC Protective Devices required for NERC Compliance
		2/17/16 11:01:00	2/17/16 13:19:00		
		5/23/16 21:34:00	5/24/16 8:29:00		Transmission Limitations Generator inspection and cleaning
		9/17/16 0:00:00	10/8/16 9:00:00 10/28/16 8:00:00		Generator inspection and cleaning Generator inspection and cleaning
		10/8/16 10:00:00 10/28/16 19:00:00	11/9/16 11:00:00	281.00	Generator inspection and cleaning
		11/9/16 20:00:00	11/11/16 11:00:00		Generator inspection and cleaning
		11/11/16 21:00:00	11/15/16 16:00:00	91.00	Generator inspection and cleaning
		11/15/16 17:00:00	11/18/16 13:00:00	68.00	Generator inspection and cleaning
		11/18/16 17:00:00	11/19/16 10:00:00	17,00	Generator inspection and cleaning
		11/19/16 15:00:00	11/20/16 11:00:00		Generator inspection and cleaning
		11/20/16 16:00:00	11/21/16 5:00:00		Generator inspection and cleaning
		11/21/16 10:00:00	11/22/16 4:00:00		Generator inspection and cleaning
		11/22/16 11:00:00	11/22/16 20:00:00		Generator inspection and cleaning Generator inspection and cleaning
		11/23/16 0:00:00	11/23/16 6:00:00 11/24/16 8:00:00	6.00 16.00	Generator inspection and cleaning Generator inspection and cleaning
		11/23/16 16:00:00 11/24/16 12:00:00	11/25/16 8:00:00	20.00	Generator inspection and cleaning
				12.98	Generator inspection and cleaning
	2	11/25/16 11:00:00 2/17/16 15:01:00	2/17/16 16:27:00		
	4	5/23/16 22:20:00	5/24/16 6:22:00		Transmission Limitation
		10/1/16 19:00:00	10/24/16 9:00:00	542.00	PLC (control system) Replacement Project - Fall 2016. Carpenter dam will have to be
		10/1/16 19:00:00	10/24/10 9.00.00		in a site wide outage to perform the PLC Replacement projects.
		10/24/16 10:00:00	10/24/16 13:00:00	3.00	PLC (control system) Replacement Project - Fall 2016. Carpenter dam will have to b
		10/24/10 10:00:00	10,21,10 (0,00.00		in a site wide outage to perform the PLC Replacement projects.
		10/24/16 16:00:00	10/25/16 8:00:00	16.00	PLC (control system) Replacement Project - Fall 2016. Carpenter dam will have to b
		10/2 11 12 13 13 13 13 13 13 13 13 13 13 13 13 13			in a site wide outage to perform the PLC Replacement projects.
		10/25/16 12:00:00	10/25/16 13:00:00	1.00	PLC (control system) Replacement Project - Fall 2016. Carpenter dam will have to b
	1				in a site wide outage to perform the PLC Replacement projects. PLC (control system) Replacement Project - Fall 2016. Carpenter dam will have to be
		10/25/16 18:00:00	10/31/16 13:14:00	139.23	in a site wide outage to perform the PLC Replacement projects.
			= #### 0 00 F0 00	005.00	Planned Outage
HOT SPRING	1	5/4/16 0:11:00		495.07	Fall 2016 Planned Outage
THE SELECTION OF THE SE	+ 1	10/1/16 0:02:00 3/5/16 0:01:00		334 97	clean circulating water side of condenser tubes.
INDEPENDENCE	4	6/25/16 0:30:00		356.50	BWCP Suction Valve seal ring leak
LAKE CATHERINE	7	9/24/16 0:01:00		167.98	Rescheduled Spring Planned Outage
	1	10/1/16 0:00:00		1,500.98	Rescheduled Spring Planned Outage
MABELVALE	1	5/19/16 7:30:00	5/19/16 11:31:00		Substation crew needs to perform routine maintenance on B4564
(*)	3	5/19/16 7:30:00			
OUACHITA	1	1/16/16 0:25:00		1,876.00	OP1 Major Outage
		4/11/16 0:20:00		89.12	Balance shot STG, Hardware inspection CTG
	1	4/15/16 16:41:00			OP1 Maint Outage to correct STG vibration OP1 Maint Outage to implement Nerc PRC-19 EX2000 V/HZ limiter settings, repair
		6/6/16 1:01:00	6/9/16 23:55:00	94.90	rubber seal around TK fan damper, inspect/repair hotspot in CTG Exhaust casing ne
				1	exhaust thermocouples.
	1	10/24/16 0:01:00	10/27/16 11:30:00	83.48	OP1 Fall Maint Outage - Offline Waterwash
	2	3/26/16 0:25:00		963.58	² OP2 Major Outage
	4	5/1/16 0:00:00		1 4 005.00	OP2 Major Outage
	1				Work done during PO. STG balance shot, HP Steam inspection
	1	6/15/16 18:45:00 6/24/16:0:22:00		143.68	Work done during PO. STG balance shot, HP Steam inspection
		7/2/16 15:23:00		97.09	outage work Balance shot
		7/23/16 0:19:00		296.22	Outage taken to repair the subsynchronous vibration issue on OP2 STG and the noise
		1120,10 01111			issue on the OP2 STG Main steam stop control valve.
		8/4/16 14:42:0	8/7/16 0:38:00	57.93	Unit 2 tripped off due STG exciter problems
	1	8/7/16 5:10:0			Unit 2 off line 86 relay rolled on STG
		8/7/16 14:56:0	8/12/16 2:55:00	107.98	
				0 //60/20	dispatch DP2 Fall Maint Outage - Offline Waterwash
		10/31/16 0:01:0	11/3/16 18:33:00		DP2 Fall Maint Outage - Offline Waterwash Change Exciter Brushes (Scheduled Brush PM)
REMMEL DAM	2	4/6/16 9:06:0	4/6/16 9:32:0	0.43	Change Exciter Brushes (Scheduled Brush P M) Planned Outage to Rewind the Remmel Dam Unit #3 Generator and Replace the Co
	3	9/8/15 7:37:0	3/3/16 15:45:0	0 1,503.78	Iron Laminations.
	-	EMPINE 7-40-0	5/17/16 3:50:0	0 20.67	Control of the Contro
UNION	2	5/16/16 7:10:0 9/17/16 0:01:0			B Annual Outage
		10/1/16 0:01:0			7 Annual Outage
		11/1/16 0:00:0			Repair H2 leak on 2C
WHITE BLUFF	-1	10/22/16 0:42:0		0 007.0	7 WB1 Planned Outage B Boller Outage; EC Outage; Circulating Water Pump Repair; Partial RH replacement

 $^{^1}$ - Event completely overlaps Outage-Unscheduled Partial events indicated by supercript 1 - Events completely overlap Outage-Unscheduled Partial events indicated by supercript 2

				S UNS	CHEDULED COMPLETE OUTAGE
Plant Name	Unit No.	Out Da	te On	Hrs. Lost	Reason for Outage
ARKANSAS NUCLEAR ONE	1	5/26/2016 04:34:00	5/27/2016 00:05:00	19.52	EHC o-ring gasket leak.
		9/28/2016 09:32:00	10/1/2016 00:00:00	62,47	Manually tripped the reactor for 2K-4A EDG Forced Outage.
			10/27/2016 15:56:00	639.93	Manually tripped the reactor for 2K-4A EDG Forced Outage
CARPENTER DAM	11	4/13/16 8:26:00			Outage requested by Transmission - No other reason given.
	2	4/13/16 8:24:00			Outage requested by Transmission - No other reason given
	1 8	9/20/16 8:00:00			CD2 testing to support controls replacement project
	1 8	9/27/16 7:57:00			Safety to allow divers to inspect the head gate on unit 1
		9/28/16 8:07:00			Safety to allow divers to inspect the head gate on unit 1.
HOT SPRING	1	4/16/16 1:00:00			The 4160 cable to our reservoir pumps failed.
]	5/20/16 11:31:00			Main Steam Piping Leak.
		5/20/16 21:30:00			Main Steam Piping Leak
	1 1	11/19/16 17:14:00			Complete GT1 Repairs
		12/7/16 9:00:00			Hydrogen leak repairs on STG.
INDEPENDENCE	1 1	1/11/16 4:58:00			Loss of power center due to relays getting wet on Buss located on mezzanine.
		3/28/16 4:47:00			Before seat drain valve had stuck open and eroded a hole in drain pipe leading back to condenser.
	1 1	4/20/16 14:56:00			Waterwall and reheater boiler tube failures.
		10/28/16 6:52:00			Boiler tube leak detected near seal trough area.
LAKE CATHERINE	4	5/5/16 7:29:00			Turbine Vacuum Trip was event recorded by annunciator PLC however indication in PI showed vacuum was OK.
		9/20/16 15:13:00	The state of the s	25.17	Lake Catherine experienced a unit trip at 5:13 PM. The boiler safeties lifted to blow stean
OUACHITA	1	4/24/16 6:00:00			Turning gear problem
]	6/10/16 7:27:00			LP admission control valve position linkage broken.
		6/23/16 B:51:00			Unit tripped during voltage testing
	1 1	8/7/16 7:36:00			Unit tripped due to loss of media converter switch for Delta V data highway
	}	9/8/16 20:50:00			Delta V control power loss
		9/16/16 16:15:00			False Hi level in condensate drain tank, tripped STG then got CTG.
	2	12/9/16 8:35:00			Loss of a 480V aux bus due to relay issues
	2	2/24/16 21:48:00 3/8/16 23:49:00			Loss of back feed power to Unit2. No oil pressure for turning gear. Unit tripped due to lighting strike and a failed fuel gas pressure transmitter.
	1 1	7/1/16 7:21:00			Ground on Exciter.
	1 1	9/11/16 20:04:00			STG Tripped due to loss of communication with exciter CTG went to full speed no load
	1 }	9/14/16 1:32:00			STG Tripped due to loss of communication with exciter CTG went to full speed no load
	l 1	9/14/16 7:26:00			STG Tripped due to loss of communication with exciter CTG went to full speed no load
	1 1				
		10/23/16 11:58:00			Unit tripped on an glitch in adelta V card
REMMEL DAM	1	3/10/16 11:07:00			Power supply shorted
		5/23/16 20:59:00			Transmission Limitation
	2	11/30/16 7:59:00 3/10/16 11:12:00			Remmel outage to comply with Transmission Reliability request. Power supply shorted
	'	5/23/16 20:28:00			Transmission Limitation
	l t	8/11/16 20:06:00			Lower guide bearing low flow. Cleaned and back in service.
	l t	10/8/16 6:07:00			Unit tripped, Low governor oil pressure was first out. Unit reset and returned to service
	l }	10/9/16 6:41:00			Unit tripped. Low governor oil pressure was first out. Unit would not reset and operate
	3	11/30/16 8:02:00 3/10/16 11:14:00			Remmel outage to comply with Transmission Reliability request.
) ·	5/23/16 20;55:00			Power supply shorted Transmission Limitation
		11/30/16 8:06:00			Remmel outage to comply with Transmission Reliability request
TINION	2				
UNION	2	3/20/16 15:21:00 3/24/16 0:09:00		3.73 6,27	Trouble with main steam stop valves going closed uncommanded. Trouble with main steam stop valves going closed uncommanded. GE tech to work on un
		4/30/16 9:49:00			Dogbone gasket failure on condenser
	l 1		T		
	l f	5/1/16 0:00:00 7/7/16 13:02:00			Dogbone gasket failure on condenser Thermowell blew out on Main Steam Common Header. Had to shut down to make repairs
	l ł	7/13/16 10:30:00	the second secon		· · · · · · · · · · · · · · · · · · ·
	l +	11/13/16 7:43:00			480V feeder breaker tripped dueto failed protection relay Repair H2 leak on 2C
		12/7/16 15:16:00			Could not isolate valve with other CT online. Shut block down so work could be performed
	+	12/14/16 9:00:00		-	
MAUTE DI CIEC					Discovered oil dripping onto one of the Mark V boards, believe this to be the cause of the MSV closures we have been experiencing.
WHITE BLUFF	1	1/18/16 0:35:00			Feedback from MOD B7901 in switchyard had a false signal going to plants Mark VI
		1/21/16 1:00:00			A relay had a burned coil which prevented the permissives from being made for the EX21
		2/4/16 13:37:00			Switchyard Work by transmission that will require unit to be out of service
	-	3/6/16 14:18:00			Boiler Tripped on Low Air Flow when FD Fan Beck Drive Feedback Card Failed
		3/13/16 17:08:00 3/14/16 20:18:00			Boiler Feedpump Valve Linkage cracked causing servo to bind. Boller Feed Pump Valve Linkage Binding on Servo due to crack in the support of the line
		3/15/16 0:38:00	3/17/16 8:27:00	-	Boiler Water Wall Tube Leak Near Seal Trough Area
		12/6/16 20:43:00	12/10/16 1:37:00	76.90	1C BWCP had a leak around flange gasket. The leak became apparent when the unit
		12/12/16 8:56:00	12/13/16 20:21:00	35.42	reached 2000 psi One the sealant cap plugs around the end bell on the exciter end of the generator backed
	2	6/20/16 15:26:00	6/20/16 23:03:00		out. This allowed the sealant to leak There were only two feeders in service after initially tying online. One of the feeders trippe
					causing a unit load runback
	1 1	6/30/16 21:55:00	7/1/16 3:51:00	5.93	The turbine tripped on low turnbine lube oil pressure. This occurred during the transfer of

				DUTAGE	SCHEDUL	ED PARTIAL OUTAGE
Plant Name	Unit No.	Date		Hrs. Lost	*Oper, Rate %	Reason for Outage
T latte Harris	Omit wo.	Out	On	11101 - 0 111		
ARKANSAS NUCLEAR ONE	1					Megawatt losses due to removing E11B North Condenser Waterbox from service for
		4/3/2016 19:25:00	4/10/2016 17:03:00	165.63	98.49	tube cleaning
						Megawatt losses due to removing E11A North Condenser Waterbox from service for
		4/11/2016 02-43:00	4/15/2016 04:56:00	98.22	96.74	tube cleaning,
	1 1					Megawatt losses due to removing E11A South Condenser Waterbox from service for
		4/18/2016 00 09 00	4/22/2016 16:09:00	112,00	99.65	tube cleaning,
						Megawatt losses due to removing E11B South Condenser Waterbox from service for
		4/25/2016 00:39:00	5/1/2016 00:00:00			tube cleaning,
	[5/6/2016 23:04:00				Planned power decrease to ~85% for Turbine Valve / Governor Valve Testing.
			9/24/2016 00:07:00			Power Reduction due to Fuel Coastdown into 1R26 Refueling Outage:
	2	5/14/2016 10:21:00	5/14/2016 13:45:00			Main Turbine Control Valve Stroke Test
	l i	9/11/2016 14:07:00	9/11/2016 16:27:00		7-1	Main Turbine Control Valve Stroke Test,
CARPENTER DAM	1	11/15/15 8:00:00	3/7/16 9:00:00	1,564.98		Fall Drawdown required by FERC License
		3/28/16 7:00:00	5/23/16 10:00:00	1,340 92	80.65	Transmission limitation for Carpenter dam to Max 50MW output. Derating each unit 6 MW
		5/27/16 17:49:00	6/3/16 17:00:00	167.18	80.65	Derate plant capacity to 50MW per transmission limitation.
		11/26/16 0.00.00	1/1/17 0:00:00	864.00	96.77	Derate Carpenter 1 by 1 MW due to lake draw down
	2	11/15/15 8:00:00	3/7/16 9:00:00	1,591.57	96.77	Fall Drawdown required by FERC License
		3/28/16 7:00:00	5/23/16.10:00:00	1,340.25	80.65	Transmission limitation for Carpenter dam to Max 50MW output. Derateing each unit MW
	1 1	5/27/16 17:49:00	6/3/16 17:00:00	167.18	80.65	derate Carpenter to 50MW per transmission limitation
		11/12/16 0:00:00	1/1/17 0:00:00	1,200.00	96.77	Derate Carpenter 1 MW due to Lake Draw Down.
HOT SPRING	1	7/7/16 0:12:00	7/7/16 11:42:00	11.50	48.09	Valve maintenance
		7/30/16 0:01:00	7/31/16 16:03:00	40.03		Water Wash Gas Turbines
		11/22/16 10:00:00	11/23/16 10:57:00	24.95	46.80	Spectra needs to run a cleaning pig in the natural gas pipeline in the month of November
REMMEL DAM	1	11/15/15 8:00:00	3/7/16 9:00:00	1,593.00	75.00	Fall Drawdown required by FERC License
	2	11/15/15 8:00:00				Fall Drawdown required by FERC License
	3	11/15/15 8:00:00				Fall Drawdown required by FERC License
UNION	2	12/7/16 0:00:00				Rebuild feed water recirc valve

^{*} Operating Rate = ((Max, MW - Derated MW)/Max, MW)*100

	F 3		NERATING UNIT C			ED PARTIAL OUTAGE
Plant Name	Unit No.	Out	On	Hrs. Lost	*Oper. Rate %	Reason for Outage
ARKANSAS NUCLEAR ONE	2	2/5/2016 23:17:00	2/10/2016 15:17:00	112.00	73.39	Power reduction to ~68% to allow "B" Feedwater Pump Turbine 2K-2B to be remov from service.
						Dispatcher requested derate to less than 400 Mwe Net due to the loss of the 500 K
HOT SPRING	1	11/18/2016 14:56:00 1/4/16 5:45:00		39.07	86,29	
101 SPRING	1 1	1/4/16 5:45:00	1/4/16 7:47:00 1/13/16 15:13:00	2.03 0.42		CT2 Trip
		5/25/16 20:59:00		18,75		De-Rate Due to Steam Piping Leak
		6/15/16 15:00:00	6/15/16 18 00 00	3.00		AC/DC power distribution module shorted
		6/27/16 1:00:00	6/27/16 6:15:00	5,25		Coupling failed on Lube Oil pumps
		7/9/16 13:00:00	7/9/16 22:29:00	9.48		PM3 GCV out of position trip.
		8/28/16 0:01:00		0.55	21.06	Download constant change on STG
		8/31/16 19:00:00	9/3/16 14:00:00	67.00		GT-2 Lube oil coupling failure
	1 1	11/13/16 7:15:00	11/19/16 17:14:00	153,98		Stack damper closed
	1 3	11/21/16 11:00:00 12/8/16 21 30:00		2.57		Complete GT1 Repairs.
	11 - 3	12/29/16 23:55:00		41,30 48,08		GT2 EX2000 Repairs GT1 Exhaust Spread Issue
NDEPENDENCE	1	1/26/16 18:28:00	1/27/16 14.30.00	20.03		Welded flange at pump base began spraying water
	1 1	2/2/16 17:22:00	2/2/16 20:12:00	2.83		Condensate Pump "B" vibration
	1 3	2/2/16 20:12:00	2/5/16 3:31:00	55.32		condensate pump vibration
	1 1	3/30/16 5:15:00	3/30/16 10:57:00	5,70		Condensate pump seal leaking.
	1	7/21/16 0:01:00	7/21/16 5:56:00	5,92	38.74	1A Condensate Pump seal blown out 1B not available. Replaced seal in 1A
						Condensate pump
	1	9/14/16 8:57:00	9/14/16 10 56:00	1.98		Reset superheat safeties on Unit-1
	5	9/17/16 22 52:00 10/29/16 21:00:00	9/17/16 23:46:00	0.90		Reset superheat safelies on Unit-1
	1	11/16/16 7:50:00	10/30/16 22:47:00 11/18/16 18:00:00	25.78 58.17		OPACITY HIGH Limited by transmission to 450MW
	1	12/1/16 16:09:00	12/1/16 23:34:00	7.42		Opacity Issues (High opacity)
AKE CATHERINE	4	1/19/16 7:48:00	1/19/16 8:29:00	0.68		Intermittent igniter header pressure transmitter failure
	1	1/20/16 9:50:00	1/20/16 10:50:00	1.00		Intermittent igniter header pressure transmitter failure
	1 1	5/8/16 4:00:00	5/8/16 16:40:00	12.67		4B BFPT will not roll up. Additional troubleshooting identified the feedback
						mechanism
		5/23/16 21:03:00	5/24/16 5.11.00	8.13		Transmission Limitations
DUACHITA	1	1/1/16 0:00:00	2/1/16 0:00:00	360.42		Water in oil during supplemental Firing\cannot run at full Load
] }	2/1/16 0:00:00	3/1/16 0:00:00	0.00 1		Water in oil during supplemental Firing\cannot run at full load
	1 3	3/1/16 0:00:00	4/1/16 0:00:00	0.00 1		Water In oil during supplemental Firing\cannot run at full load
		9/9/16 8:39:00	9/9/16 10:16:00	1,62		DCS issues
	2	1/1/16 0:00:00	2/1/16 0:00:00	744.00		Water in oil during supplemental Firing\ cannot run at full Load
	J	2/1/16 0:00:00 3/1/16 0:00:00	3/1/16 0:00:00 4/1/16 0:00:00	685.83 590.73		Water In oil during supplemental Firing\cannot run at full load
	}	4/1/16 0:00:00	5/1/16 0:00:00			Water In oil during supplemental Firing\cannol run at full load Water In oil during supplemental Firing\cannot run at full load
	1 1	5/1/16 0:00:00	6/1/16 0:00:00	0.00 2		
JNION	2	3/4/16 15:55:00	3/4/16 19:18:00	0.00 ²		Water In oil during supplemental Firing\cannot run at full load
DINION	^	3/19/16 0:17:00	3/19/16 1:17:00	3.38 1.00		Found express switches to be out of cal. Trouble with main steam stop valves going closed uncommanded.
	1	3/20/16 3:32:00	3/20/16 3:48:00	0.27		Trouble with main steam stop valves going closed uncommanded.
		3/20/16 3:48:00	3/20/16 4:20:00	0.53		Trouble with main steam stop valves going closed uncommanded.
	l i	3/22/16 4:48:00	3/22/16 5:04:00	0.27		Trouble with main steam stop valves going closed uncommanded.
		3/23/16 4 19 00	3/23/16 4:30:00	0.18		Trouble with main steam stop valves going closed uncommanded.
	[5/9/16 10:00:00	5/16/16 7:10:00	165,17	89.39	Circ water motor bad
	ļļ	5/17/16 3:50:00	5/18/16 11:00:00	31.17	89.39	Circ water motor bad, Motor inplace, install incomplete
	1	5/29/16 0:10:00	5/29/16 10:13:00	10.05		2B Tripped after switchyard breaker failure opened the breaker.
		7/12/16 7:00:00	7/13/16 10:00:00	27.00		Daniels fuel flow meter went out. Can not run without due to Air Permit.
		7/18/16 7:00:00	7/18/16 9:28:00	2.47	47.15	2B tripped on Exhaust overtemp. Recalibrated GT gas control valves and restarted
	l İ	7/21/16 6:32:00	7/21/16 9:27:00	2.92	51.08	unit. Unit tripped for no apparent reason, found errors on MarkV T core. Rebooted brocessosr
	1	8/15/16 5:21:00	8/15/16 6:01:00	0.67	28 29	Lost control power feeding Exciter. Breaker tripped
	1	8/15/16 9:54:00	8/15/16 10:27:00	0.55		Lost control power feeding Exciter. Breaker tripped
		10/3/16 5:00:00	10/3/16 7:37:00	2.62		Multiple valves were left in maintainance mode after outage
	l Î	10/22/16 0:06:00	10/26/16 15:24:00	111.30		troubleshoot and repair seal oil lean on 2A generator
	[12/4/16 13:25:00	12/4/16 13:53:00	0.47	24.39	One of the MSVs went closed for unknown reason.
		12/6/16 5:44:00	12/6/16 6:03:00	0.32		One of the MSVs went closed for unknown reason.
		12/8/16 6:37:00	12/8/16 6:59:00	0.37		One of the MSVs went closed for unknown reason.
		12/13/16 18:06:00	12/13/16 18:39:00 12/14/16 0:11:00	0.55		One of the MSVs went closed for unknown reason.
WHITE BLUFF	1	12/13/16 22:40:00 1/11/16 5:50:00	1/11/16 12:40:00	1.52 6.83		One of the MSVs went closed for unknown reason. Problems with getting enough feeders in service to get above 300 mwn.
WITTE BEOTT	l ' h	1/22/16 11:15:00	1/22/16 13:59:00	2.73		Valve CDV-20 would not open when requested which limited condensate makeup t
		3/6/16 17:10:00	3/6/16 21:38:00	4.47		Feedback Card on Beck was replaced. Feedback Card on Beck Drive needed
		3/13/16 18:47:00	3/13/16 22:00:00	3.22		Feedback Card on Beck was replaced. Feedback Card on Beck Drive needed Calibration aft Boiler Feed Pump Valve Linkage Binding on Servo due to crack in the support of It
		3/13/16 23:59:00	3/14/16 14:45:00	14.77		Boiler Feed Pump Valve Linkage Binding on Servo due to crack in the support of it line Boiler Feed Pump Valve Linkage Binding on Servo due to crack in the support of it
		7/19/16 16:00:00	3/14/16 14:45:00 7/19/16 18:38:00	15	~	line
		8/28/16 18:12:00		2.63		O2 probe was reading un-reasonably high but continued to pass calibration. Cause fans to max out on air flow. Oath 5 footbase overlibe 15 Millions is prosted. Disped belong 4 A and 4 Disped.
ĺ	2	6/21/16 18:00:00	8/29/16 10:07:00	15.92		Only 5 feeders available. 1F Mill was in overhaul. Ripped belts on 1A and 1B feede causing them to become unavailable. CDV 20 and repropried a corrective points in layer in DA. FWH, layer penticipe and
		1.0	6/22/16 8:00:00	14.00		CDV-20 not responding correctly to maintain level in DA. FWH level controllers not responding correctly.
		10/10/16 11:00:00	10/11/16 6:27:00	19.45		The ash handling trunk line on AC precipitator was clogged with ash. The ash coube pulled out of the hoppers.

^{*} Operating Rate = ((Max, MW - Derated MW)/Max, MW)*100

 $^{^{1}}$ - Event completely overlapped by the Outage-Scheduled Complete event indicated by supercript 1 - Events completely overlapped by the Outage-Scheduled Complete events indicated by supercript 2

AVERAGE ANNUAL HEAT RATES, NET KWH OUTPUT AND CAPACITY FACTORS

- 1. Report on all generating units available for operation.
- 2. Compute heat rates on basis of total fuel burned on each unit including burner lighting, banking fuel and spinning fuel.
- 3. Yearly Capacity Factor in percent =

Total Kilowatt Hours Generated

- x 100 Kilowatt Capacity of Unit (name plate rating) x 8,784

Plant Name	Unit No.	MW (2)	B.t.u Per Net Kwh	Net Gen. Kwh x 10 ⁶ (3)	Capacity Factor (4)	Major Fuel
Arkansas Nuclear One	1	833	10,404	5,372		Uranium
	2	985	10,358	7,352	85.02%	Uranium
Independence S.E.S. (1)	1	263	10,392	1,147	49.61%	Coal
White Bluff S.E.S. (1)	1	465	10,780	1,336		Coal
	2	468	10,746	1,748	42.56%	Coal
Lake Catherine S.E.S.	4	520	11,299	340	7.44%	Gas
Remmel Dam	Blk	12	N/A	44	42.76%	Hydro
Carpenter Dam	Blk	62	N/A	142	26.00%	Hydro
Ouachita	1	256	7,270	1,351	60.19%	Gas
	2	253	7,191	1,338	60.30%	Gas
Hot Spring	1	609	7,395	2,969	55.55%	Gas
Union	2	507	7,354	2,374	53.35%	Gas

⁽¹⁾ Jointly owned units are reported at Entergy Arkansas Inc.'s ownership level for MW as well as Net Gen MWH. Entergy Arkansas Inc.'s share is 31.5% in Independence Unit 1, 57% in White Bluff.

⁽²⁾ MISO GVTC generator unit ratings for 2016.

⁽³⁾ Generation data from billing system for year 2016.

⁽⁴⁾ Calculated using GVTC rating of the unit over 8,784 hours for 2016.



Time Period: 2017-2021

FUTURE SALES, LOADS, & RESOURCES PER DOCKET NO. U-2897 - ELECTRIC UTILITIES -

1. Provide the following information relating to generating plants, both existing and proposed, (and associated fuel supply and other facilities) with a capacity of 50 MW or more to be used to supply system demands during the next five (5) calendar years:

(a & b)	(c)	ate (d)	(e) Plant Ownership		
Name & Location of Plant (1)	Const. Beg.	Plant in Service Date	% Owned	Other Owners (if Applicable)	
ake Catherine (Unit #4) Malvern, AR		1970	100		
Carpenter Dam (Unit #1) Hot Springs, AR		1932	100	,	
Carpenter Dam (Unit #2) Hot Springs, AR		1932	100		
Remmel (Unit #1) Malvern, AR		1923	100		
Remmel (Unit #2) Malvern, AR		1923	100		
Remmel (Unit #3) Malvern, AR		1923	100		
Ark. Nuclear One (Unit #1) (7) Russellville, AR		1974	100		
Ark. Nuclear One (Unit #2) (7) Russellville, AR		1980	100		
White Bluff (Unit #1) (7) Redfield, AR		1980	57	AR Elec. Coop. Corp. City of: Jonesboro Conway West Memphis	
Mhite Bluff (Unit #2) (7) Redfield, AR		1981	57	AR Elec. Coop. Corp. City of: Jonesboro Conway West Memphis	
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Time Period: 2017-2021

FUTURE SALES, LOADS, & RESOURCES PER DOCKET NO. U-2897 - ELECTRIC UTILITIES -

1. Continued

Plant Capacity (2) (MW) 520 520 31 31 4 4 4 4 833 985 985 985 (5)	100 H 100 H 100 H 100 H 100 H 100 H	(h) Plant Type Steam Hydro - Storage Hydro - Storage Hydro - Storage Hydro - Storage Steam	(i) Fuel Type Nat. Gas Hydro Hydro Hydro Hydro Hydro	(j) Net Heat Rate 11,299 N/A N/A N/A N/A N/A	(\$000s) 62,354 11,396 12,015 6,063 5,728	(I) Plant Cost Per KW Capacity (4) (\$) 120 368 388 1,516
Availal Firm 520 31 31 31 4 4 4 4 4 4 4 4 4	ble to Meet Demands 100 S 100 H 100 H 100 H 100 H 100 H	Steam Hydro - Storage	Nat. Gas Hydro Hydro Hydro Hydro	11,299 N/A N/A N/A	(\$000s) 62,354 11,396 12,015 6,063 5,728	Capacity (4) (\$) 120 368 388 1,516
31 31 4 4 4 833 985 985 (5)	100 H 100 H 100 H 100 H 100 H 100 H	Hydro - Storage	Hydro Hydro Hydro Hydro	N/A N/A N/A	11,396 12,015 6,063 5,728	368 388 1,516
31 4 4 4 833 985 985 (5)	100 H 100 H 100 H 100 H 94.56 S	Hydro - Storage Hydro - Storage Hydro - Storage Hydro - Storage	Hydro Hydro Hydro	N/A N/A N/A	12,015 6,063 5,728	388 1,516
31 4 4 4 833 985 985 (5)	100 H 100 H 100 H 100 H 94.56 S	Hydro - Storage Hydro - Storage Hydro - Storage Hydro - Storage	Hydro Hydro Hydro	N/A N/A N/A	12,015 6,063 5,728	388 1,516
4 4 4 833 985 985 (5)	100 H 100 H 100 H 94.56 S	Hydro - Storage Hydro - Storage Hydro - Storage	Hydro	N/A N/A	6,063 5,728	1,516
4 4 833 985 985 (5)	100 H	Hydro - Storage	Hydro	N/A	5,728	
4 833 985 985 465 (5)	100 H	Hydro - Storage				1,432
833 8 985 8 465 (5)	94,56		Hydro	N/A		
985 985 985 985 985 985 985 985 985 985		Steam			10,334	2,584
465 8 (5) 467 8			Uranium	10,404	1,376,070	1,652
(5) 467	94,58	Steam	Uranium	10,358	1,524,685	1,548
	86,13	Steam	Low Sulfur Coal	10,780	264,872	570
	86.13	Steam	Low Sulfur Coal	10,746	232,813	499
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ee Footnote on E-11						

Time Period: 2017-2021

FUTURE SALES, LOADS, & RESOURCES PER DOCKET NO. U-2897 - ELECTRIC UTILITIES -

Provide the following information relating to generating plants, both existing and proposed, (and associated fuel supply and other facilities) with a capacity of 50 MW or more to be used to supply system demands during the next five (5) calendar years:

(a & b)	(c)	Date (d)	F	(e) Plant Ownership
Name & Location of Plant (1)	Const. Beg.	Plant in Service Date	% Owned	Other Owners (if Applicable)
Independence (Unit #1) (7) Newark, AR		1983	31,5	AR Elec. Coop. Corp. Entergy Mississippi, Inc. City of: Jonesboro
				Conway West Memphis Osceola
Ouachita (Unit #1) Sterlington, LA		2008	100	
Ouachita (Unit #2) Sterlington, LA		2008	100	
Hot Spring Malvern, AR		2012	100	
Union (Union #2)		2016	100	
Stuttgart Solar (8)	2017	2018	0	Stuttgart Solar, LLC
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FOOTNOTES:

- (1) Some currently operable gas-fired generating units will likely be deactivated during the next 5 years. Others will continue to operate.
- (2) Based on summer 2017/2018 ratings as approved by MISO.
- (3) Jointly owned unit costs are for EAI share only
- (4) Cost of Unit divided by Rated Capability (owned percentage of cost & capability for jointly owned units)
- (5) EAI share only.
- (6) Includes acquisition adjustment.
- (7) MW capacity reported includes capacity sold to other entities under the unit power sales agreements
- (8) Stuttgart Solar will be available via a Power Puchase agreement.

Time Period: 2017-2021

FUTURE SALES, LOADS, & RESOURCES PER DOCKET NO. U-2897 - ELECTRIC UTILITIES -

1. Continued

(f)	(g)	(h)	(i)	(j)	(k)	(1)
Plant Capacity (2) (MW)	% Plant Capacity Available to Meet Firm Demands	Plant Type	Fuel Type	Net Heat Rate	Cost of Plant (3) (\$000s)	Plant Cost Per KW Capacity (4) (\$)
(5) 263	86.13	Steam	Low Sulfur Coal	10,392	164,411	625
256	100	Combined Cycle	Natural Gas	7,270	145,134 (6)	567
253	100	Combined Cycle	Natural Gas	7,191	150,772 (6)	596
609	100	Combined Cycle	Natural Gas	7,395	352,896 (6)	579
507	100	Combined Cycle	Natural Gas	7,354	190,528	376
81	100	Solar	Solar	N/A	N/A	N/A
	=					
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* See Footnote on E-11

Time Period: 2017-2018

FUTURE SALES, LOADS, & RESOURCES PER DOCKET NO. U-2897 - ELECTRIC UTILITIES -

 Provide the following information relating to electric transmission lines (and associated facilities including substations) of a design voltage of 100 KV or more extending more than 10 miles and /or of 170 KV or more extending 1 mile to be used to supply system demands during the next two (2) calendar years:

(a)	(b)	(c)	(d)	(e)	Sub- (f)
Line Size	Line Distance	Route of Line	Purpose of Line	Cost of Line	Number
115kV	25 miles	Lake Village Bagby - Reed SS	Reliability project required to comply with NERC standards	\$29.5 M	4
115kV	36 miles	Jim Hill - Datto	Reliability project required to comply with NERC standards	\$66.4 M	5
115kV	22 miles	Monticello East - Reed SS	Reliability project required to comply with NERC standards	\$41.0 M	2
				550	

Time Period: 2017 - 2018

FUTURE SALES, LOADS, & RESOURCES PER DOCKET NO. U-2897 - ELECTRIC UTILITIES -

2. Continued

Stations (g)	(h)	(i)		Line Ownership (j)
Location	Date Const. Began/Begins	Date to be Placed in Service	% Owned	Other Owners (if applicable)
Lake Village Bagby, Macon Lake SS, Dermott SS, and Reed SS	Sep-14	Jun-17	100%	N/A
Datto, AECC Corning North, Corning, Texas Eastern Sw Sta 8, and Jim Hill	Jan-15	May-19	100%	N/A
Reed SS and Monticello East	Sep-16	Jun-18	100%	N/A
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Time Period: 2017 - 2018

FUTURE SALES, LOADS, & RESOURCES PER DOCKET NO. U-2897 - ELECTRIC UTILITIES -

3. Provide by consumer classes (include residential or domestic sales, commercial sales, industrial sales, public street and highway lighting sales, other sales to public authorities, sales or resale, interdepartmental sales) forecasts of the following for the next two (2) calendar years:

	(a)	(b)	(c)	(d)	(e)
Year	Customer Class	Avg. No. of Customers	Sales Kwh	System Peak Demand (kw)	Non-Coincidental Peak Demand (kw)
2017	DECIDENTIAL	592,588	8,089,324,122	2,052,337	2,270,858
2017	RESIDENTIAL	93,550	5,950,917,072	1,399,916	1,413,966
	COMMERCIAL	23,222	7,842,775,229	1,262,162	1,291,173
	INDUSTRIAL LIGHTING & PUBLIC AUTH	709	238,428,305	52,174	52,698
	RESALE	705	230,420,003	32,174	52,000
	COMPANY USE		35,048,576	7,473	8,080
	TOTAL	710,069	22,156,493,304	4,774,062	5,036,775
	TOTAL	710,069	22,156,493,304	4,774,062	5,030,775
2018	RESIDENTIAL	596,700	8,109,107,631	2,089,824	2,282,050
	COMMERCIAL	94,371	5,972,536,901	1,395,964	1,416,013
	INDUSTRIAL	23,111	8,328,030,118	1,327,638	1,369,149
	LIGHTING & PUBLIC AUTH	716	238,729,237	51,727	52,411
	RESALE		<u>S</u>	(E	3
	COMPANY USE	2	35,083,624	7,972	8,098
	TOTAL	714,898	22,683,487,511	4,873,125	5,127,721
			27		
		16			

Time Period: 2017 - 2018

FUTURE SALES, LOADS, & RESOURCES PER DOCKET NO. U-2897 - ELECTRIC UTILITIES -

3. Continued

(f)	(g)	(h)
Average Annual Load factor (Based on System Peak Demand)	Average Annual Load factor (Based on Non- Coincidental Peak Demand)	% Line Losses
0,4499	0.1000	
	0.4066	9,4372%
0.4853	0.4804	9.1922%
0.7093	0.6934	7.6284%
0.5217	0.5165	8.4088%
		9.4372%
0.5354	0.4952	9.1922%
G G		
0.4430	0,4056	9.4372%
0.4884	0.4815	9.1922%
0.7161	0.6944	7.6284%
0.5268	0.5200	8.4088%
	0.0200	9.4372%
0.5024	0.4946	
0.3024	0,4946	9.1922%
i i		

Time Period: 2017

FUTURE SALES, LOADS, & RESOURCES PER DOCKET NO. U-2897 - ELECTRIC UTILITIES -

4. Provide forecasts of the following for the next two (2) calendar years in kilowatts (beginning January 1):

	(a)	(b)		(c)
Year	System Peak Demand	Power Sources to Meet System P	eak Demand (1) (3)	Reserves (Average System & at System Pea
2017		Owned Capability: MW		
		Ark. Nuclear Carpenter Hot Spring Independence Lake Catherine	1,719 62 609 263 520	
		Remmel Ouachita White Bluff UPP	12 508 803 507	
			5,003	
		Purchases W/O Reserves: Blakely - ADD Degray - ADD Grand Gulf TOTAL	10 11 308 329	
		Sales W/O Reserves:		
		TOTAL CAPABILITY (2)	5,332	
				=
) in the second of the second		

⁽¹⁾ To include self-owned generating capability identified by plant, firm and non-firm purchases identified by contract

⁽²⁾ Total capability is equal to owned capability plus purchases w/o reserves minus sales w/o reserves. Capability margin at Entergy system peak.

⁽³⁾ Generation capacity values are based on ratings for the 2017/2018 MISO planning year.

Time Period: 2018

FUTURE SALES, LOADS, & RESOURCES PER DOCKET NO. U-2897 - ELECTRIC UTILITIES -

4. Provide forecasts of the following for the next two (2) calendar years in kilowatts (beginning January 1):

	(a)	(b)		(c)
Year	System Peak Demand	Power Sources to Meet System Peak Demand	d (1) (3)	Reserves (Average System & at System Peak
2018		Owned Capability: MW		
		Ark. Nuclear Carpenter Hot Spring Independence Lake Catherine Remmel Ouachita White Bluff UPP	1,719 62 609 263 520 12 508 803 507	
		Purchases W/O Reserves:		51
		Blakely - ADD. Degray - ADD. Grand Gulf	10 11 308	
		TOTAL Sales W/O Reserves:	329	
10		TOTAL CAPABILITY (2)	5,332	
		*		

⁽¹⁾ To include self-owned generating capability identified by plant, firm and non-firm purchases identified by contract

⁽²⁾ Total capability is equal to owned capability plus purchases w/o reserves minus sales w/o reserves. Capability margin at Entergy system peak.

⁽³⁾ Generation capacity values are based on ratings for the 2017/2018 MISO planning year.

Time Period: 2017 - 2018

FUTURE SALES, LOADS, & RESOURCES PER DOCKET NO. U-2897 - ELECTRIC UTILITIES -

5. Describe methodology used in forecasts in sufficient detail to allow replication by a third party. Include graphs and formulae if appropriate

Use of Econometric Models for Sales Forecasting:

The Entergy Operating Companies, including Entergy Arkansas, Inc. (EAI), use econometric models for forecasting residential, commercial, small industrial and governmental electric sales. The models use ten years of monthly historical data when possible, although some models use only five to eight years because of reliability issues with older sales data. The Entergy Operating Companies' top industrial customers are forecasted and tracked individually through account managers. Of the top industrial accounts, 16 are located in the area served by EAI.

Economic driver data used in the econometric models, both historical and forecasted, are obtained from IHS Markit Inc. The data includes both customized data for the area served by EAI, as well as national drivers for a wide variety of variables. Temperature data is obtained from the National Weather Service and converted to cooling and heating degree days for use in all models except for those instances (such as for all industrial class models) where no dependence of sales to weather could be established. Actual data is used for the historical time periods and normal (defined as the twenty-year average ending December 2015) cooling and heating days are used for the forecasted periods.

Econometric sales forecasts for EAI's residential class are derived from separate usage per customer ("UPC") and customer count models, the outputs of which are multiplied together on a monthly basis to produce estimated total sales volumes. For the other classes, total usage is directly calculated by the models (i.e., monthly UPC can be calculated by dividing the output of those models by the outputs of the customer count models). The key drivers for the UPC/usage models are generally gross area economic output (similar to national gross domestic product) or real income, while customer count models are typically based on drivers such as population or households. The residential UPC and commercial usage models additionally incorporate end use variables such as appliance efficiencies and home size to account for the impact of changing end use characteristics through time. These models are generically known as Statistically Adjusted End Use (SAE) models. To account for additional energy efficiencies driven by company-sponsored Demand Side Management (DSM) programs that are not accounted for by the SAE models, an additional decrement is made where applicable for both the residential and commercial classes for the estimated future impacts of these programs.

At least once per year, typically in June, the Entergy Operating Companies complete a comprehensive five-year sales forecast where econometric models are completely re-estimated and where each top industrial account forecast is produced. The output of this exercise is the first step of a multi-stage process that determines the hourly demand (MW), generation mix and fuel cost assumptions used for planning purposes.

The software package used to perform the econometric modeling is:

MetrixND 4.4.1 VBA Edition Itron, Inc. San Diego, CA

Time Period 2017-2018

Describe methodology used in forecasts in sufficient detail to allow replication by a third party. Include graphs and formulae if appropriate.

Modeling Equations: Results and Diagnostics

EAI Residential Usage per Customer (MWh/Cust/Month)

Coefficient	StdErr	T-Stat	P-Value
3.07	0.06	51.224	0.00%
1,16	0,02	65,189	0.00%
0.48	0,01	36,040	0.00%
(156.93)	39.69	(3.954)	0.02%
(79.46)	38,50	(2.064)	4.25%
101.04	38.54	2.621	1.06%
	3.07 1.16 0.48 (156.93) (79.46)	3.07 0.06 1.16 0.02 0.48 0.01 (156.93) 39.69 (79.46) 38.50	3.07 0.06 51,224 1,16 0.02 65,189 0.48 0.01 36,040 (156,93) 39.69 (3.954) (79.46) 38.50 (2.064)

Forecast	Actual	Pred	
2016	1.08		
2017		1.10	
2018		1.09	
2019		1.08	
2020		1.07	
2021		1.05	
2022		1.04	

Residential Customer Count

Coefficient	StdErr	T-Stat	P-Value
680.77	3,87	176,058	0.00%
(1,722.89)	824.44	(2.090)	4.00%
(2,054.663)	824.244	(2.493)	1.48%
1	0	29.902	0.00%
	680.77 (1,722.89)	680.77 3,87 (1,722.89) 824,44	680.77 3,87 176,058 (1,722.89) 824,44 (2,090) (2,054.663) 824,244 (2,493)

Forecast	Actual	Pred	
2016	589,524		
2017		592,588	
2018		596,700	
2019		601,662	
2020		606,816	
2021		611,915	
2022		616,534	

Regression Statistics	20 0 2 1
Iterations	1
Adjusted Observations	81
Deg. of Freedom for Error	75
R-Squared	0.983
Adjusted R-Squared	0,982
AIC	7.345
BIC	8
F-Statistic	#NA
Prob (F-Statistic)	#NA
Log-Likelihood	(406.39)
Model Sum of Squares	6,156,383
Sum of Squared Errors	108,108
Mean Squared Error	1,441
Std. Error of Regression	38
Mean Abs. Dev. (MAD)	28
Mean Abs. % Err. (MAPE)	0
Durbin-Watson Statistic	1
Durbin-H Statistic	#NA
Ljung-Box Statistic	32.190
Prob (Ljung-Box)	0.122

Regression Statistics	
Iterations	11
Adjusted Observations	80
Deg. of Freedom for Error	76
R-Squared	0.758
Adjusted R-Squared	0.749
AIC	14.144
BIC	14
F-Statistic	#NA
Prob (F-Statistic)	#NA
Log-Likelihood	(675.26)
Model Sum of Squares	314,997,293
Sum of Squared Errors	100,496,078
Mean Squared Error	1,322,317
Std. Error of Regression	1,150
Mean Abs. Dev. (MAD)	904
Mean Abs. % Err. (MAPE)	0
Durbin-Watson Statistic	2
Durbin-H Statistic	#NA
Ljung-Box Statistic	34.060
Prob (Ljung-Box)	0.084

Time Period 2017-2018

Describe methodology used in forecasts in sufficient detail to allow replication by a third party, Include graphs and formulae if appropriate.

Modeling Equations: Results and Diagnostics

EAI Commercial Usage (MWh/Year)

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	298,846	32,482	9.200	0.00%
MStructRev.HDDIndXindex	1,049,094.77	74,699.59	14.044	0.00%
MStructRev.CDDIndXindex	275,466.80	5,976,19	46.094	0.00%
MStructRev.OtherXIndex	8,293.90	3,100.898	2.675	0.92%
MBin Oct CDD55	43,612	8.058	5.412	0.00%
MBin.Sep14	36,802	9,411	3,910	0.02%
MBin,TrendVar15	2,182.180	773.019	2,823	0.61%
AR(1)	0,275	0.124	2.210	3.03%

Forecast	Actual	Pred	2 11 12
2016	5,988,103		
2017		5,911,414	
2018		5,934,013	
2019		5,954,308	
2020		5,972,891	
2021		5,976,139	
2022		5,970,365	

Commercial Customer Count

Variable	Coefficient	StdErr	T-Stat	P-Value
CONST	80,275.63	3,730.70	21.518	0.00%
Economics.LaborForce	11.52	3.90	2.951	0.40%
MBin.TrendVar15	769.66	39.02	19.727	0.00%
MBin.Apr14	495.50	129.91	3.814	0.02%
AR(1)	0,75	0,07	11.140	0.00%

Forecast	Actual	Pred	
2016	92,791		
2017		93,550	
2018		94,371	
2019		95,191	
2020		96,003	
2021		96,786	
2022		97,549	

Regression Statistics	
Iterations	14
Adjusted Observations	80
Deg. of Freedom for Error	72
R-Squared	0.985
Adjusted R-Squared	0,983
AIC	18.422
BIC	19
F-Statistic	668,803
Prob (F-Statistic)	2:02
Log-Likelihood	(842.40)
Model Sum of Squares	426,459,692,708
Sum of Squared Errors	6,558,644,719
Mean Squared Error	91,092,288
Std. Error of Regression	9,544
Mean Abs. Dev. (MAD)	7,228
Mean Abs. % Err. (MAPE)	0
Durbin-Watson Statistic	2
Durbin-H Statistic	#NA
Ljung-Box Statistic	35,650
Prob (Ljung-Box)	0.059

Regression Statistics	
Iterations	12
Adjusted Observations	104
Deg. of Freedom for Error	99
R-Squared	0,991
Adjusted R-Squared	0.991
AIC	10.233
BIC	10
F-Statistic	2,766.036
Prob (F-Statistic)	1.5
Log-Likelihood	(674.68)
Model Sum of Squares	293,520,816
Sum of Squared Errors	2,626,372
Mean Squared Error	26,529
Std. Error of Regression	163
Mean Abs. Dev. (MAD)	119
Mean Abs. % Err. (MAPE)	0
Durbin-Watson Statistic	2
Durbin-H Statistic	#NA
Ljung-Box Statistic	104,820
Prob (Ljung-Box)	<u> </u>

Time Period 2017-2018

Describe methodology used in forecasts in sufficient detail to allow replication by a third party, include graphs and formulae if appropriate.

Modeling Equations: Results and Diagnostics

Small Industria	Usage	(MWh/Year)
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Variable	Coefficient	StdErr	T-Stat	P-Value
Economics TotEm	458	7	69.340	0.00%
MStructRev.CDDIndXindex	115,052	8,017	14,351	0,00%
MStructRev.HDDIndXindex	599,020	170,609	3,511	0.08%
MBin.Jan	(62,968)	12,193	(5.164)	0,00%
MBin.Feb	(49,258)	-11,342	(4.343)	0.00%
MBin.Mar	(52,831)	9,271	(5.698)	0,00%
MBin.Apr	(46,797)	6,562	(7.131)	0,00%
MBin.May	(40,344)	5,989	(6.737)	0.00%
MBin.Jun	(37,100)	5,339	(6,949)	0,00%
MBin.Dec	(35,131)	8,652	(4.061)	0.01%
MBin.Sep16	(46,638)	12,826	(3.636)	0.05%

Actual	Prod	
	1100	
,,002,000	4.916.858	
	4,964,448	
	5,001,712	
	5,031,690	
	5,038,016	
	5,050,611	
	Actual 4,802,806	4,802,806 4,916,858 4,964,448 5,001,712 5,031,690 5,038,016

Industrial Customer Count

Variable	Coefficient	StdErr	T-Stat	P-Value
Economics.TotEm	24	1	46.921	0.00%
MBin Mar	(1,518)	273	(5,557)	0.00%
MBin.Apr	(1,632)	281	(5.806)	0.00%
MBin.Jun	3,814	375	10,157	0,00%
MBin.Jul	6,531	595	10.970	0.00%
MBin.Aug	6,358	661	9.622	0.00%
MBin.Oct	2,981	354	8.419	0.00%
MBin.Sep	5,436	577	9,422	0.00%
MBin.May12	1,303	288	4.529	0.00%
MBin.Jul12	(761.652)	290,168	(2.625)	1.02%
MBin.Mar14	(969)	309	(3.130)	0.24%
MBin.Mar16	(1,201,162)	364,751	(3,293)	0.14%
AR(1)	1	0	13.620	0.00%
AR(2)	(0.517)	0.092	(5.592)	0.00%
SMA(1)	0	0	4.481	0.00%
SMA(2)	1	0.103	5.271	0.00%

Forecast	Actual	Pred	
2016	23,858		
2017		23,208	
2018		23,097	
2019		23,176	
2020		23,296	
2021		23,350	
2022		23,443	
I			

Regression Statistics	
Iterations	1
Adjusted Observations	81
Deg. of Freedom for Error	70
R-Squared	0.938
Adjusted R-Squared	0.929
AIC	19.006
BIC	19
F-Statistic	#NA
Prob (F-Statistic)	#NA
Log-Likelihood	(873.68)
Model Sum of Squares	166,972,725,990
Sum of Squared Errors	11,086,456,925
Mean Squared Error	158,377,956
Std. Error of Regression	12,585
Mean Abs. Dev. (MAD)	9,025
Mean Abs. % Err. (MAPE)	0
Durbin-Watson Statistic	2
Durbin-H Statistic	#NA
Ljung-Box Statistic	40,470
Prob (Ljung-Box)	0.019

Regression Statistics	
Iterations	16
Adjusted Observations	103
Deg. of Freedom for Error	87
R-Squared	0,978
Adjusted R-Squared	0.974
AIC	12.818
BIC	13
F-Statistic	#NA
Prob (F-Statistic)	#NA
Log-Likelihood	(790,29)
Model Sum of Squares	1,212,237,846
Sum of Squared Errors	27,850,707
Mean Squared Error	320,123
Std. Error of Regression	566
Mean Abs. Dev. (MAD)	425
Mean Abs. % Err. (MAPE)	0
Durbin-Watson Statistic	2
Durbin-H Statistic	#NA
Ljung-Box Statistic	9.800
Prob (Ljung-Box)	0.995

Time Period 2017-2018

Describe methodology used in forecasts in sufficient detail to allow replication by a third party, Include graphs and formulae if appropriate.

Modeling Equations: Results and Diagnostics

EAI Government Usage (MWh/Year)

Variable	Coefficient	StdErr	T-Stat	P-Value
Economics Pop	9	0,20	47.474	0.00%
MStructRev.CDDIndXindex	6,099	778.75	7.831	0.00%
MBin.Aft_Jun12_Shift	(2,466)	356.39	(6,919)	0.00%
MBin.Feb	581	240.26	2.420	1.81%
MBin.May10	(1,818)	602.92	(3.016)	0.36%
MBin,Nov11	(1,924)	603,23	(3.190)	0.21%
AR(1)	1	0.12	6.839	0.00%
AR(2)	(0)	0.12	(2.968)	0.41%

Forecast	Actual	Pred	
2016	237,391		
2017		238,441	
2018		238,742	
2019		238,842	
2020		238,912	
2021		238,850	
2022		238,824	

Government Customer Count

Variable	Coefficient	StdErr	T-Stat	P-Value
Economics.Pop	0.31	0.002	141.084	0.00%
MBin Trend_Aft09	5.85	1.243	4.706	0.00%
MBin.May12	(9.32)	4.116	(2.265)	2.58%
MBin.Dec15	31.88	4.694	6.792	0.00%
MBin.Jan16	13.60	4.693	2,898	0.47%
MBin.May16	12,906	4.092	3.154	0.22%
MBin.Aug16	21.84	4.096	5.331	0.00%
AR(1)	1	0,056	14.650	0.00%

Forecast	Actual	Pred	50 L T
2016	706		
2017		709	
2018		716	
2019		723	
2020		730	
2021		736	
2022		743	

Regression Statistics	
Iterations	29
Adjusted Observations	79
Deg. of Freedom for Error	71
R-Squared	0.911
Adjusted R-Squared	0.902
AIC	13.492
BIC	14
F-Statistic	#NA
Prob (F-Statistic)	#NA
Log-Likelihood	(637.04)
Model Sum of Squares	479,138,968
Sum of Squared Errors	46,693,104
Mean Squared Error	657,649
Std. Error of Regression	811
Mean Abs. Dev. (MAD)	619
Mean Abs. % Err. (MAPE)	0
Durbin-Watson Statistic	2
Durbin-H Statistic	#NA
Ljung-Box Statistic	70.420
Prob (Ljung-Box)	*

Regression Statistics	
Iterations	11
Adjusted Observations	104
Deg. of Freedom for Error	96
R-Squared	0.942
Adjusted R-Squared	0.938
AIC	3.410
BIC	4
F-Statistic	#NA
Prob (F-Statistic)	#NA
Log-Likelihood	(316.88)
Model Sum of Squares	43,814
Sum of Squared Errors	2,698
Mean Squared Error	28
Std. Error of Regression	5
Mean Abs. Dev. (MAD)	4
Mean Abs. % Err. (MAPE)	0
Durbin-Watson Statistic	2
Durbin-H Statistic	#NA
Ljung-Box Statistic	25.130
Prob (Ljung-Box)	0.399

Time Period 2017-2018

5. Describe methodology used in forecasts in sufficient detail to allow replication by a third party. Include graphs and formulae if appropriate.

Definitions

Sales and Customers

MR MC Residential Sales (MWh) Commercial Sales (MWh) MΙ Industrial Sales (MWh) MG Government Sales (MWh) CR Residential Customers CC CI Commercial Customers Industrial Customers

CG Government Customers

DSM Dec Res and Com Decrements to Forecast to Account for DSM Programs, Residential and Commercial

Economic Drivers

CONST

Constant MBin.Feb14 & similar Monthly binary variables

MBin.TrendVar01 & similar

Trend variables

MStructRev.HDDIndXindex Indexed Heating variable (combined economic, weather and end use variable) MStructRev.CDDIndXindex Indexed Cooling variable (combined economic, weather and end use variable) MStructRev.OtherXIndex Indexed Other end uses variable (combined economic, weather and end use variable)

MStructRev.OtherBddaysXindex Billing Days Indexed Other end uses variable (combined economic, weather and end use variable)

Economics.HH EAI Number of Households

EAI Population Economics.Pop

MWthrRev.CDD75 & similar Cooling Degree days calculated using 75 degrees as basis

Economics.TotEm EAI Total Employment Economics.LaborForce EAI Labor Force Employment

Modeling Modifiers

Autoregressive correction term AR(1,2) MA(1,2) Moving average terms SMA(1,2) Seasonal moving average terms

Time Period 2017-2018

Describe methodology used in forecasts in sufficient detail to allow replication by a third party.
 Include graphs and formulae if appropriate.

Model Input Data

Ye	ear	MR	MC	MI	MG	CR	CC	CI	CG
20	07	7,725,494	5,944,757	7,424,344	276,549	576,884	85,948	21,987	681
20	80	7,678,130	5,875,401	7,211,475	272,897	579,303	87,141	21,887	637
20	109	7,464,428	5,817,073	6,375,865	268,971	580,574	87,712	21,556	657
20	110	8,500,577	6,143,558	7,081,928	277,061	582,980	88,348	22,110	672
20	111	8,228,536	6,050,806	7,028,951	275,274	583,978	88,777	21,967	673
20	112	7,858,973	6,045,688	6,925,238	256,972	584,560	89,371	22,578	683
20	113	7,921,078	5,928,538	6,768,842	240,706	585,378	90,045	22,999	683
20	114	8,069,921	5,933,527	6,808,334	237,523	586,023	90,730	23,645	691
20	115	8,016,308	6,019,807	6,888,953	235,160	588,067	91,614	23,795	700
20	116	7,586,093	5,917,418	6,805,496	236,796	589,872	92,788	23,470	705

Time Period 2017-2018

Describe methodology used in forecasts in sufficient detail to allow replication by a third party, Include graphs and formulae if appropriate.

	Res	Res	Res	Com	Com	Com	Res	Com
		CDDIndXindex	OtherXIndex	HDDIndXindexCom	CDDIndXindexCom	OtherBddaysXindexCom	DSM Dec Res	DSM Dec Con
1995	1,139	4,361	102,784	0.3465	4.3191	141.1078		-
1996	1,349	4,022	104,649	0.4097	4.0262	141.7155	- 4	
1997	1,170	3,956	106,526	0.3549	3,9934	142.0273		
1998	1,000	5,246	108,683	0.2911	5.1888	141.9397	16	*:
1999	1,095	4,353	112,398	0.3118	4.2217	143.7538	200	8
2000	1,183	4,579	113,995	0.3308	4.3533	142.7810	19 8 5	=
2001	1,409	4,152	116,333	0.3842	3.8561	142.9929	3.42	23
2002	1,351	4,052	117,863	0.3632	3.7548	142.5481	72	<u>-</u>
2003	1,337	3,991	120,014	0.3543	3,6797	143.0955	071	-
2004	1,138	3,783	121,724	0.2971	3.5184	143.3665		
2005	1,192	4,702	123,613	0.3033	4.2730	141.9028		
2006	1,111	4,537	123,706	0.2822	4.1936	139,8797	-	24
2007	1,099	4,538	123,526	0.2783	4.2509	137.9079	243	=
2008	1,286	3,794	124,828	0.3229	3,5561	135.9038	720	-
2009	1,193	3,397	125,063	0.2978	3,2309	134.1835		18
2010	1,330	4,808	127,351	0.3323	4,5536	132,5990		: €:
2011	1,206	4,424	129,261	0.2980	4.1384	130.6459	,	190
2012	887	4,492	132,814	0.2166	4.1629	130.6387	-	12
2013	1,255	3,721	132,594	0.3025	3.4153	128.0725	120	V _e =
2014	1,419	3,424	132,751	0.3383	3,1311	128.5796	-	
2015	1,163	4,078	133,513	0.2734	3,7300	128.5427	1.50	
2016	943	4,114	134,541	0.2184	3.7514	128.8185	3 = 2	(6)
2017	1,143	3,757	134,166	0.2609	3,4162	127.9983	(2,521)	(21,034)
2018	1,139	3,720	133,507	0.2538	3.3704	127.8016	(2,021)	(36,056)
2019	1,134	3,685	132,370	0.2463	3.3252	127.4082	*	(45,382)
2020	1,127	3,654	129,108	0.2391	3,2805	127.1520	120	(14,992)
2021	1,121	3,628	127,307	0,2327	3,2202	126,9836	177	(532)
2022	1,116	3,608	126,265	0.2276	3,1746	126,8065		(552)

Time Period 2017-2018

 Describe methodology used in forecasts in sufficient detail to allow replication by a third party. Include graphs and formulae if appropriate.

Economic and Weather Variables

Year	HH	Pop	TotEm	LaborForce	-
1991	712	1,885	706	884	
1992	723	1,903	727	899	
1993	733	1,924	744	901	
1994	738	1,946	765	929	
1995	750	1,969	797	955	
1996	762	1,989	812	961	
1997	773	2,007	818	958	
1998	786	2,022	836	952	
1999	797	2,036	848	959	
2000	806	2,051	859	959	
2001	811	2,056	854	944	
2002	817	2,059	836	945	
2003	822	2,064	833	949	
2004	827	2,073	834	953	
2005	832	2,085	840	977	
2006	840	2,104	855	1,001	
2007	842	2,118	858	999	
2008	848	2,132	863	1,001	
2009	856	2,144	849	1,004	
2010	858	2,156	826	987	
2011	862	2,165	837	996	
2012	871	2,169	842	994	
2013	863	2,169	840	955	
2014	858	2,169	835	935	
2015	858	2,169	844	947	
2016	862	2,168	861	956	
2017	866	2,170	866	976	
2018	872	2,173	871	984	
2019	880	2,176	873	989	
2020	888	2,179	876	993	
2021	895	2,182	880	996	
2022	903	2,185	884	996	

Name of Company: ENT	ERGY ARKANSAS, INC.
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Time Period: 2017-2018

FUTURE SALES, LOADS, & RESOURCES PER DOCKET NO. U-2897 - ELECTRIC UTILITIES -

5. Describe methodology used in forecasts in sufficient detail to allow replication by a third party. Include graphs and formulae if appropriate.

Reference No. 3 a-h

WHOLESALE MODEL

There is no forecasted wholesale load in 2017 and 2018.

Time Period: 2017-2018

FUTURE SALES, LOADS, & RESOURCES PER DOCKET NO. U-2897 - ELECTRIC UTILITIES -

5. Describe methodology used in forecasts in sufficient detail to allow replication by a third party. Include graphs and formulae if appropriate.

Reference No. 3 a-h

EAI's 30-year hourly load forecast is produced using computer software from Itron. Itron is a metering and consulting services company that produces the MetrixND and MetrixLT software for energy forecasting, weather normalization, and hourly load and peak load forecasting.

The forecast uses key inputs from several sources:

- 1. The Monthly Retail Energy Sales Forecast is developed using an econometric model (MetrixND) for each revenue class. Econometric sales forecasts are derived from separate usage per customer (UPC) and customer count models, the outputs of which are multiplied together on a monthly basis to produce total gigawatt-hour sales. The key drivers for the UPC models are generally gross area economic output (similar to national gross domestic product) or real income, while customer count models are typically based on drivers such as population or households. Key macroeconomic inputs are supplied by IHS Markit Inc.
- EAI's largest industrial customers' loads are forecasted individually based on Entergy's relationship and knowledge of the accounts. Some industrial customers have interruptible and/or curtailable contracts. These interruptible customers are identified and the hourly load shape for each is aggregated to an EAI total.
- 3. The Monthly Wholesale Energy Sales Forecast is prepared for each wholesale customer. Each wholesale customer is assigned an appropriate load shape or in some cases multiple load shapes depending on the contractual agreement and the customer class composition of the wholesale customers being served. For the time period 2017-2018, EAI has no wholesale customers in the forecast.
- 4. Twenty-year "typical weather" is used to convert historical load shapes into typical load shapes. Each customer class has its own weather response function. MetrixND is used to adjust the historical load shapes by typical weather to produce the load shapes used to create the 30-year hourly load forecast. Weather for EAI is based on a Little Rock weather station.
- 5. Load shapes are developed using actual EAI revenue class loads. Current EAI load shapes are based on data from 2007-2015.

The MetrixLT software combines the typical load shapes from the MetrixND model with the Retail, Wholesale and Industrial forecasts to produce 30-year, hourly load shapes. As the energy forecasts are input "at the meter," a transmission/distribution factor for each revenue class is used to produce a forecast of load required at the generator. The load at the generator is higher than the load at the meter to account for the need to produce power sufficient to cover line losses.

REPORT TO ARKANSAS PUBLIC SERVICE COMMISSION - YEAR 2016

CHECK LIST

COMPANY NAME	ENTERGY ARKANSAS, INC.

Instructions: In the space provided, please enter the appropriate amounts from the Annual Report to the APSC and the FERC Form 1. Any differences should be fully explained. Any differences between ending figures from last year's annual report and beginning balances in this year's annual report should be fully explained.

Description	Annual Report Amount	FERC Form 1 Amount	Difference
Total Electric Plant-in-Service			
Beginning Balance	\$ 9,628,094,683	\$ 9,628,094,683	\$ (0)
Ending Balance	\$ 10,559,212,561	\$ 10,559,212,561	\$ (0)

REPORT TO ARKANSAS PUBLIC SERVICE COMMISSION - YEAR 2016

Company Information			
Company Name	ENTERGY ARKANSAS, INC.		
dba			
Official Mailing	P.O. BOX 551		
Address	LITTLE ROCK, ARKANSAS 72203		

AREA	PERSON TO CONTACT	PHONE #	FAX#	E-MAIL
Annual Report	Laura Landreaux * VP, Regulatory Affairs	501-377-5876	501-377-3599	Iraffae@entergy.com
Fuel Adjustment Report				
Cost of Debt Report				
Tariffs				
Accounting				
Rates				
Engineering				
Finance				
Income Taxes				
Property Taxes				×
Gas Supply				
Legal				
Data Processing				4

1,242	
1,242	ì

^{*} Initial contact for all areas.

STATEMENT OF ACCURACY

I do hereby state that the amounts contained in this report are true and accurate, schedules have been cross-referenced by use of the attached check list, and that the accuracy of all totals has been verified by me or under my supervision. Should I or anyone under my supervision become aware of any error in or omission from this report, I will take steps to notify the Arkansas Public Service Commission of such error or omission and provide corrected schedules as soon as possible.

Alyson M. Mount

Senior Vice President and Chief Accounting Officer